

MASTER ENGINEERING SYSTEMS 2025-2026

AUTOMOTIVE SYSTEMS



THE AUTOMOTIVE INDUSTRY FACES ENORMOUS CHALLENGES. APPLY FOR THE MASTER IN AUTOMOTIVE SYSTEMS AND START WORKING ON THE SOLUTIONS!

HANUNIVERSITY.COM/MAS

OPEN UP NEW HORIZONS.

HAN UNIVERSITY
OF APPLIED SCIENCES



PROFESSION

Designing, developing, producing and evaluating vehicle systems and components. In short, the profession of an automotive engineer. What does a master qualification add to this skill set? Technical expertise at master level in the field of automotive engineering. Applied research skills, so the ability to conduct research in an industrial setting. The ability to balance technical interests with economic and commercial interests. And the expertise to evaluate and realize underlying control strategies and embedded electronic systems.

Where you can work? At internationally operating automotive companies and suppliers. The border region between the Netherlands and Germany has excellent career opportunities. With your project management and applied research skills, you'll be in high demand.

JOBS

With this master degree, you can get a job as:

- Vehicle Application Engineer
- Product Engineer
- R&D Test Engineer
- Advanced Research Engineer
- System/CAE Engineer

A GOOD MATCH?

- Do you want to expand and deepen your knowledge of automotive engineering?
- Do you want to raise your skills to master level?
- Would you like to be the linking pin between different disciplines and management?
- Do you want to develop your leadership qualities?
- Are you keen to further develop your skills in intercultural teamwork?
- Are you analytical and do you enjoy doing applied research?

YES? Then the program is a good match for you!

MODULAR-BASED PROGRAM

Engineering Systems is modular-based. You follow 4 modules in total and conclude with a major project. Each module starts with the theory. Then you participate in a group project where you apply the theory in a real-life case. This is called the minor project. The modules you follow depend on your track. Each track has compulsory and elective modules.

PROGRAM IN BRIEF

THEORY AND PRACTICE

Theory and practice go hand in hand in this master degree. In the 1st year you follow practice-based modules. So you delve into the theory and at the same time put it into practice during minor projects. Here you work in small groups with other students. Your aim? To solve actual issues from research and industry. Knowledge and techniques from research are thus implemented and applied in an industrial environment. This collaborative approach strengthens ties with industry and stimulates the exchange of knowledge. After finishing the practice-based modules you work on your major project. That's when you independently conduct research for a company.

TRACKS

Automotive Systems is a track within the Master in Engineering Systems. Other tracks are:

- Cyber-Physical Systems
- Sustainable Energy

What is common to all these tracks? Solving complex problems through applied research. And developing innovations that meet the needs of the market and/or society.

WHY STUDY AUTOMOTIVE SYSTEMS AT HAN?

Ready for the future

This automotive master program focuses on developing the cars of the future: smarter, safer and greener!

Collaboration with industry

Various automotive companies contribute to the curriculum. How? Through guest lectures, excursions, supervision for projects and supplying assignments for minor and major projects.

Valuable network

Through the HAN Automotive Center of Expertise you build up a valuable network. Very useful for your further career.

Linked to the profession

Work on real projects for the automotive industry. Together with companies like Ford Research and DAF Truck.

Direct transfer after bachelor

Transfer directly after your Bachelor in Mechanical Engineering, Electrical Engineering, Process Technology or Automotive Engineering.

European double degree

Study for 1 year at HAN and 1 year at another European university and get a double degree (Master in Automotive Engineering and Master of Science). Find out more on emae.eu.

RESEARCH

Work on innovative projects through the HAN Automotive Research Group. HAN collaborates with industry partners like Ford Research and DAF Trucks on themes like green and smart mobility. Take the electrification of the powertrain. The research group has been building and testing prototype vehicles and test rigs. Another research area is smart mobility. Making vehicles smarter helps prevent accidents caused by human error.

PROGRAM OVERVIEW

1st semester

Systems Modeling Module:

- Applied Physics
- Introduction Modeling
- Practice Modeling and Simulation
- System Identification
- Energy-Based Modeling
- Minor Project

Applied Control Module:

- Feedback Control
- Digital Control
- Apply Controller Strategies
- Controller Implementation
- Multivariable Systems and Optimizations
- Minor Project

2nd semester

Choose 2 elective modules from:

Advanced Vehicle Dynamics:

- Modeling, Simulation and Testing
- Comfort, Road Holding and Handling
- Passenger Cars, Articulated Vehicles, Motorcycles, Driver Modeling
- Minor Project

Innovations in Powertrains:

- Powertrain Sizing, Functions, Subsystems and Components
- Sustainable Hybrid Drivelines and Controls
- Modeling and Optimization of Energy Efficiency
- Analysis on Overall Sustainability
- Minor Project

Intelligent Mobility:

- Evolving Mobility Needs
- Sensor Technologies & Environmental Perception
- Data processing Technologies
- Communication Technologies
- Supporting Infrastructure Technologies
- Human Behavior & Engineering Ethics
- Minor Project

Hydrogen Technology:

- H2 Components
- System Design, Integration, Control and Safety
- Role in Energy Transition
- Hydrogen in Society
- Minor Project

3rd semester

- Major Project

MAJOR PROJECT

During your major project, you do research in an industrial setting. Previously you worked in teams with classmates. Now you're in the lead! Demonstrate your technical, communication, reporting and presentation skills. The project takes 5 to 6 months for full-time students. Past students did their graduation projects at Bosch, Hyster-Yale, DAF, Ford, Apollo Tyres, VDL, and V-Tron. Want to do your project abroad? No problem. HAN can support you online.

STUDY PART-TIME

Want to broaden your knowledge while working? Develop your professional skills even further with the part-time Automotive Systems track. Instead of doing an internship, you expand your skills in your current job.

→ Duration: 2.5 - 3 years

→ Study load: 20 hours/week with 8-10 contact hours on 1 day

→ Start: September

hanuniversity.com/mas/parttime.

ADMISSION REQUIREMENTS

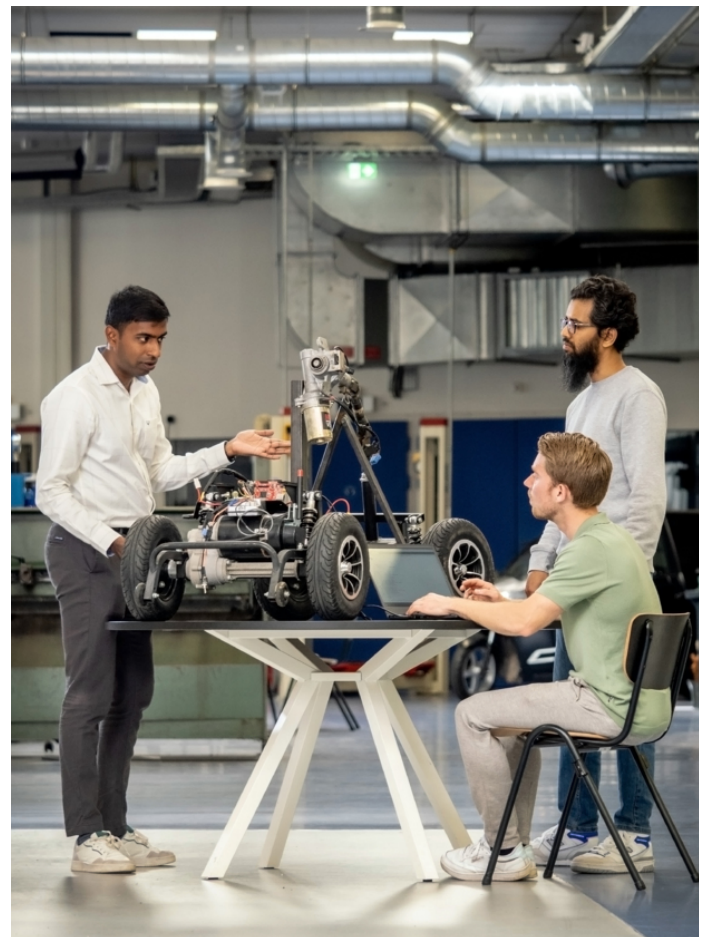
For this master, there will be a selection procedure. The following admission requirements apply. You need to have one of these bachelors:

- Bachelor degree in Automotive Engineering; Electrical Engineering; Mechanical Engineering or related discipline.

Fluency in English:

- Depending on your educational background, an English proficiency test may be required.

hanuniversity.com/admission





OPEN DAYS

Interested in Automotive Systems?
Join one of our Online Open Days
in November, January or March.
Talk to our students. Ask all your
questions. Get a tour through our
campuses and much more!

hanuniversity.com/openday

IN SHORT



Location
Arnhem



Language
English



Program start
September



Program duration
1.5 years (full-time)
2.5 - 3 years (part-time)



Study load per week

- Full-time: 40 hours (of which 16-20 contact hours 2 days per week)
- Part-time: 20 hours (of which 8-10 contact hours 1 day per week)



Degree
Master of Science in Engineering Systems



Accreditation
Accredited by the Accreditation Organisation of the Netherlands and Flanders (NVAO)

OPEN UP NEW HORIZONS.

NEXT STEPS IN ORIENTATION

Interested in studying at HAN University of Applied Sciences?
Want to find out more first? Come and meet us! Either online or in
person. Here's how you can meet our lecturers, students and
alumni:

- Open Days
- Education Fairs
- Webinars
- Meet 1:1
- Student for a Day
- Sample Lecture

hanuniversity.com/meetus

APPLICATION PROCEDURE

Step 1

Apply on [Studielink.nl](https://studielink.nl). Select the program Master Engineering Systems. Then select the track Automotive Systems.

Step 2

Upload the necessary documents. You can see your application status and find the required documents on [My Application](#).

Step 3

The program manager reviews your application. You might be asked for additional information.

Step 4

Find out whether you've been accepted. You'll be informed about the outcome of your application by mail.

Step 5

Admitted to the program? Paid the tuition fees?
Then you're officially enrolled in the program.

HAN CAMPUS ARNHEM

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QUESTIONS?

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SOCIAL

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